



**AMENDMENTS TO THE CLAIMS**

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1. (Currently amended) A wiring network for a structure having a composite fabrication assembly made of a plurality of layers of composite materials for connecting components outside of the structure for sending and receiving transmittable information between the components, the wiring network comprising:
    - a. a plurality of conductive conduits placed between layers of the assembly, each having opposite ends;
    - b. a first gateway connected ~~connector attached~~ to one end of each conduit;
    - c. a second gateway connected ~~connector attached~~ to the other end of each conduit; and
    - d. a controller for selecting a conduit from the plurality of conduits and for selecting and directing ~~the~~ transmittable information over the selected conduit ~~conduits~~.
  2. (Original) The wiring network of claim 1, further including multiple component specific conduits between the gateways and a specific component.
  3. (Original) The wiring network of claim 1, wherein the plurality of conduits comprise electrical wires.
  4. (Original) The wiring network of claim 1, wherein the plurality of conduits comprise optical fibers.
  5. (Currently amended) The wiring network of claim 1, wherein each of said gateways is a selector bus.
  6. (Original) The wiring network of claim 1, wherein each gateway is placed between layers of the assembly with the respective conduit end attached to the gateway within the layers, the

gateway further including a terminal for connecting a component to the gateway externally of the layers.

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7. (Original) The wiring network of claim 1, wherein said controller is a programmable server.
  8. (Original) The wiring network of claim 7, wherein multiple conduits between gateways are associated with each externally connected component and wherein the server is adapted for selecting any of a plurality of conduits for transmitting information between gateways to selected components.
  9. (Original) The wiring network of claim 8, wherein the selection of conduits is based on a predetermined hierarchy.
  10. (Original) The wiring network of claim 9, wherein the hierarchy is adapted for selecting the conduit of least resistance.
  11. (Original) The wiring network of claim 9, wherein the hierarchy is adapted for selecting the shortest conduit between selected components and related gateways.
  12. (Original) The wiring network of claim 7, further including a conduit selector on each gateway.
  13. (Original) The wiring network of claim 1, wherein said structure comprises a vehicle having a central control center and a plurality of components located remotely from the central control center and controlled from the central control center, and wherein at least one gateway is accessible by the control center and at least another gateway is accessible by each of the remote components.
  14. (Currently amended) The wiring network of claim 13, wherein the vehicle comprises an aircraft having a cockpit, the controller being located in the cockpit and connected to the first

gateway and ~~the~~ a remote component being located outside the cockpit and connected to the second gateway.

15. (Currently amended) A wiring system for an aircraft comprising an outer structure having a composite fabrication assembly made of a plurality of layers of composite materials for connecting components outside of the structure for sending and receiving transmittable information between the components, the wiring system comprising:

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- a. a plurality of conductive conduits placed between layers of the assembly, each having opposite ends;
  - e. a first gateway connected ~~connector attached~~ to one end of each conduit;
  - f. a second gateway connected ~~connector attached~~ to the other end of each conduit; and
  - b. a controller for selecting a conduit from the plurality of conduits and for selecting and directing ~~the~~ transmittable information over the selected conduit ~~conduits~~.

16. (Currently amended) The wiring system of claim 15, further including a cockpit with the controller located in the cockpit connected to the first gateway and one of the components located outside of the cockpit connected to the second gateway.

17. (Added) The wiring network of claim 15, wherein said controller is a computer.

18. (Added) A wiring system for an aircraft comprising an outer structure having a composite fabrication assembly made of a plurality of layers of composite materials for connecting components adjacent the structure for sending and receiving transmittable information between the components, the wiring system comprising:

- a. a plurality of conductive conduits placed between layers of the assembly, each having opposite ends;
- b. a first gateway connected to one end of each conduit;
- c. a second gateway connected to the other end of each conduit; and
- d. a server for instructing at least one of the gateways to select a conduit from the plurality of conduits for carrying transmittable information over the selected conduit.

19. (Added) The wiring system of claim 18, wherein the conduit is a first conduit of the plurality of conduits, and wherein the server determines the condition and usage of each of the plurality of conduits between the first and second gateways and instructs the gateways to select a second of the plurality of conductive conduits when the server determines the first conduit to be unusable.
20. (Added) The wiring system 15, further including a cockpit with a cockpit controller located in the cockpit connected to the first gateway and one of the components located outside of the cockpit connected to the second gateway.
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